

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 3

<i>Complete if Known</i>	
Application Number	09/892,924
Filing Date	6/26/2001
First Named Inventor	Peter-Pike J. Sloan
Art Unit	2671
Examiner Name	KIMBINH T NGUYEN
Attorney Docket Number	MS1 0791US

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

**Examiner
Signature**

Embosas negras

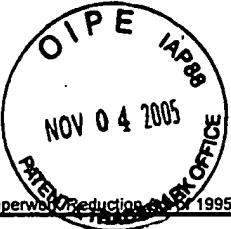
Date Considered

12-9-05

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ²Applicant's unique citation designation number (optional). ³See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbol as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/088 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperless Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

*Complete if Known***INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

2

of

3

Application Number	09/892,924	
Filing Date	6/26/2001	
First Named Inventor	Peter-Pike J. Sloan	
Art Unit	2671	
Examiner Name	KIMBINH T NGUYEN	
Attorney Docket Number	MS1	0791US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
Kn		Chapter 5: Shadow Generation Techniques, and Chapter 6: Mapping Techniques: Texture and Environment Mapping, pp. 155-201	
Kn		Woo, et al., "A Survey of Shadow Algorithms", University of Toronto: Department of Computer Science, pp. 1-29	
Kn		Chapter 1: Rendering Polygonal Objects, and Chapter 2: The Theory and Practice of Light/Object Interaction, pp. 3-48	
Kn		Kautz, et al, "Bump Map Shadows for OpenGL Rendering", MPI Informatik, Feb. 2000, pp. 1-20	
Kn		Kautz, "Shadow Bump Maps", available at http://www.mpi-sb.mpg.de/~jnkaulz/projects/shadowbumpmaps/index.html , 4 pages	
Kn		"3D Graphics Demystified", NVIDIA Corporation, pp. 1-22, plus pp. 1-4	
Kn		Sloan, et al, "Interactive Horizon Mapping", Microsoft Research, pp. 1-7	
Kn		Heidrich, et al., "Illuminating Micro Geometry Based on Precomputed Visibility", Computer Graphics Proceedings, Annual Conference Series, 2000, July, 2000, pp. 455-326	
Kn		McCool, et al., "Texture Shaders", Proceedings 1999 EUROGRAPHICS / SIGGRAPH Workshop on Graphics Hardware, August, 1999, pp. 117-126	
Kn		Segal, et al., "Fast Shadows and Lighting Effects Using Texture Mapping", Computer Graphics, vol 26, no 2, July 1992, pp. 249-252	

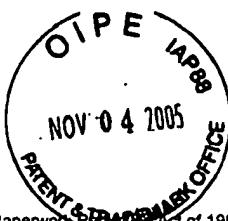
Examiner Signature	<i>Kimbinh Nguyen</i>	Date Considered	12-9-05
--------------------	-----------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Complete if Known**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

3

of

3

Application Number

09/892,924

Filing Date

6/26/2001

First Named Inventor

Peter-Pike J. Sloan

Art Unit

2671

Examiner Name

KIMBINH T NGUYEN

Attorney Docket Number

MS1 0791US

Sheet	3	of	3	Attorney Docket Number	MS1 0791US
-------	---	----	---	------------------------	------------

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
pn		Kautz, et al., "Towards Interactive Bump Mapping with Anisotropic Shift-Variant BRDFs", Max-Planck-Institute for Computer Science, 8 pages.	
kn		Zhang, "Forward Shadow Mapping", University of North Carolina at Chapel Hill: Department of Computer Science, pp. 131-138.	
kn		Williams, "Casting Curved Shadows on Curved Surfaces", Computer Graphics, vol 12, no 3, August 1978, New York Institute of Technology: Computer Graphics Lab, pp. 270-274	
kn		Blinn, "Simulation of Wrinkled Surfaces", Computer Graphics, vol 12, no 3, August 1978, Caltech/JPL, pp. 286-292	
kn		Max, "Horizon Mapping: Shadows for Bump-Mapped Surfaces", The Visual Computer, 4, 1988, pp. 109-117	
kn		Sloan, et al., "Shadowed Bump Maps", Figures A-O, pp. 1-27	
kn		Heidrich, et al., "Applications of Pixel Textures in Visualization and Realistic Image Synthesis", 1999 Symposium on Interactive 3DGraphics, pp. 127-134	
kn		Heidrich, et al., "Realistic, Hardware-Accelerated Shading and Lighting", Max-Planck-Institute for Computer Science, 8 pages	

Examiner Signature	Kimbing Nguyen	Date Considered	12 - 9 - 05
--------------------	----------------	-----------------	-------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.